CLAIMS

What is claimed is:

1. A peptide less than 280 amino acids in length, wherein the peptide comprises the amino acid sequence of SEQ ID NO: 5 or SEQ ID NO:6.

2. The peptide of claim 1, wherein the peptide comprises the amino acid sequence of SEQ ID NO: 4.

3. The peptide of claim 1, wherein the peptide is less than 50 amino acids in length.

4. The peptide of claim 1, wherein the peptide binds c-jun amino terminal kinase (JNK).

5. The peptide of claim 1, wherein the peptide inhibits the activation of at least one JNK targeted transcription factor when the peptide is present in a JNK expressing cell.

6. The peptide of claim 5, wherein the JNK targeted transcription factor is selected from the group consisting of c-Jun, ATF2, and Elk1.

7. The peptide of claim 1, wherein the peptide alters a JNK effect when the peptide is present in a JNK expressing cell.

8. The peptide of claim 7, wherein the JNK induced effect is selected from the group consisting of restenosis, oncogenic transformation, maturation and differentiation of immune cells, proinflammatory cytokines, ionizing radiation as used in radiotherapy, ultraviolet light, free radicals, DNA damaging agents, chemotherapeutic drugs, ischemia,

reperfusion, hypoxia, hypothermia, hyperthermia, apoptosis and response to stressful stimuli.

9. A chimeric peptide comprising a first domain and a second domain linked by a covalent bond, the first domain comprising a trafficking sequence, and the second domain comprising a JNK inhibitor sequence.

10. The peptide of claim 9, wherein the trafficking sequence comprises the amino acid sequence of SEQ ID NO: 9 or 10.

11. The peptide of claim 9, wherein the trafficking sequences augments cellular uptake of the peptide.

12. The peptide of claim 9, wherein the trafficking sequence directs nuclear localization of the peptide.

13. The peptide of claim 9, wherein the trafficking sequence comprises the amino acid sequence of a human immunodeficiency virus TAT polypeptide.

14. The peptide of claim 9, wherein the JNK inhibitor sequence is

(a) less than 280 amino acids in length; and

(b) comprises the amino acid sequence of SEQ ID NO: 1.

15. The peptide of claim 9, wherein the JNK inhibitor sequence binds JNK.

16. The peptide of claim 9, wherein the JNK inhibitor sequence inhibits the activation of at least one JNK targeted transcription factor.

17. The peptide of claim 16, wherein the JNK targeted transcription factor is selected from the group consisting of c-Jun, ATF2, and Elk1.

18. The peptide of claim 9, wherein the JNK inhibitor sequence alters the JNK induced effects when introduced into a JNK expressing cell.

19. The peptide of claim 18, wherein the JNK induced effect is selected from the group consisting of restenosis, oncogenic transformation, maturation and differentiation of immune cells, proinflammatory cytokines, ionizing radiation as used in radiotherapy, ultraviolet light, free radicals, DNA damaging agents, chemotherapeutic drugs, ischemia, reperfusion, hypoxia, hypothermia, hyperthermia, apoptosis and response to stressful stimuli.

20. A pharmaceutical composition comprising a peptide of claim 1, and a pharmaceutically acceptable carrier.

21. The peptide of claim 9, wherein the trafficking sequence comprises the amino acid sequence of SEQ ID NO: 8.

22. The peptide of claim 3, wherein the JNK inhibitor sequence comprises the amino acid sequence of SEQ ID NO:4.

23. A chimeric peptide comprising the amino acid sequence of SEQ ID NO:4 and SEQ ID NO:8.

24. A peptide comprising the amino acid sequence of SEQ ID NO:15.